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DATE: February 16, 2012

TO: Kelley Chase, EPA Region 3 OSC
Cynthia Caporale, EPA Region 3 OASQA

THROUGH: **Ex. 4 - CBI**

FROM:

SUBJECT: VERIFICATION/COMPLETENESS CHECK – DIMOCK, PA LABORATORY DATA
File 1201013 FINAL PART 2 of 3 R33907 02 11 12 1537.pdf

INTRODUCTION

On February 15, 2012, a review of the case narratives and corresponding certificates of analysis from the EPA R3 (VOCs, SVOCs and Alcohols Report Posted Feb 13) was reviewed at the SERAS facility in accordance with the Follow-Up Verification/Completeness Check agreed upon during our teleconference on Wednesday 2/8/12.

The assumptions for this review include the following: 1) Case narratives from the Regional labs and/or subcontract labs have been reviewed in accordance with Regional or Environmental Services Assessment Team (ESAT) protocols and contain all pertinent and complete information to conduct the completeness check. SERAS will base this review on the information provided by the laboratory and not on an actual data package; and 2) SERAS will relay any "red" flags to the EPA R3 personnel to resolve and determine data usability.

OBSERVATIONS

In accordance with Table 1 – Field and QC Sampling Summary (Rev01 - 2/3/12), Table 2 – Sample Analytical Requirements Summary (Rev01 – 2/3/12), Methods for Groundwater and Surface Water Samples and the R3 SOPs for SVOCs (R3QA201-090111), VOCs (R#QA210-030410) and alcohols (R3QA203-013012), the following observations were noted and need to be clarified/resolved.

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1. For SVOC analysis, the low level spike recovery for 2,4-dinitrophenol associated with sample FB-01 was 0%. It cannot be determined from the laboratory report if this low level spike is at the LOQ. Since this is a problematic compound, should the "UJ" be changed to unusable "R" for this sample?
   The low spike for 2,4-dinitrophenol is at the LOQ of 5 ug/L. The mid level spike did show acceptable recovery. Quantitation limit could be raised.
2. For SVOCs, it appears that flags were assigned to samples based on contaminants found in the corresponding method blanks; however, it appears that samples were not qualified based on contaminants in the corresponding field blanks. The Region needs to decide if this is or should be part of their validation process. For example when using the National Functional Guidelines for Data Review, the samples are first qualified on the basis of the method blank and then the field blank (and in the case of VOCs the trip blank also). This would eliminate most of the "J values reported (>MDL but <RL and the results raised to RL). As an example, the samples prepped on 1/29/12 are associated with B22901 and also FB-02 and FB-03.

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Many of the contaminants present in the blanks are very similar in concentration to the samples. **These samples were qualified based on Field Blanks. Please provide more specific information on which analyte you feel is not qualified.**

3. For SVOCs prepared on 1/31/12 in B23102, the 2-methoxyethanol recovery for LCS_BS1 was 0%. Since this recovery was 0%, should the samples that were non-detect be reported as unusable "R" instead of "UJ"? **The mid level spike did show acceptable recovery. Quantitation limit could be raised.**
4. For VOC analysis, there doesn't appear to be any precision and accuracy data for Freon 113, methylacetate, methyl cyclohexane or MTBE for the LCS or the MS. The Region needs to decide whether these results should be flagged as estimated "J" or a note placed in the case narrative stating that these data are not available for these compounds. **The above note also applies to cyclohexane. We do not have an LCS for Freon 113, methyl acetate, MTBE, cyclohexane or methyl cyclohexane. There were matrix spikes done for samples 1201013-14 and 1201013-33. These recoveries could not be reported due to technical difficulties in Laboratory Information Management system. Recoveries for all 5 compounds were within limits of 80-120%, except for sample 1201013-14 for cyclohexane (122%) and for sample 1201013-33 for methyl acetate (124%).**
5. For the acetone result flagged as "K" on the report table and in the case narrative, should a "J" flag also be entered indicating that this result is an estimated value probably biased high? **Notes and Definitions page does state that a result qualified with a K is estimated, so the addition of a J should not be necessary.**
6. It is assumed that all required instrument QC (RSD, %D, minimum response factors, etc.) specified by the method was run and was within the criteria listed in the EPA R3 SOPs since this information is not available in the laboratory report.

This comment is not associated with this data package but needs to be addressed for future sampling. The trip blanks and field blanks contain a large number of analytes. The source of the DI water may need to be investigated.

cc: Ex. 4 - CBI SERAS Project Officer
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